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(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): GEERDINCK, Leonie, M. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). DE BEER, Esther [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). VAN DER POL, Adrianus, J., H., P. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agent: VAN WERMESKERKEN, Stephanie, C.; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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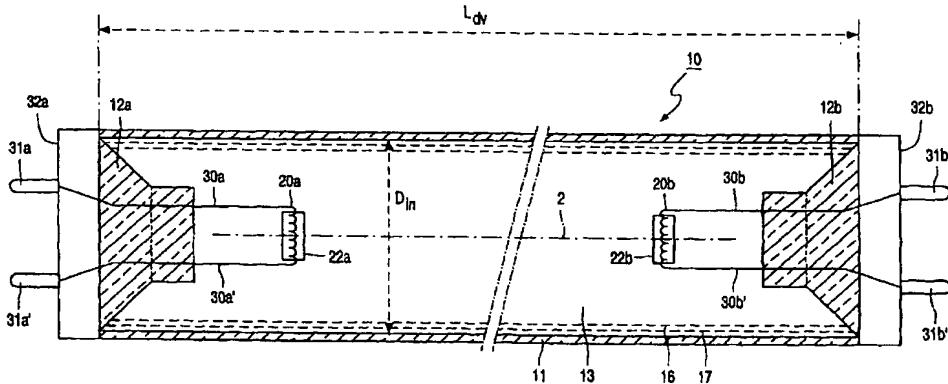
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(54) Title: LOW-PRESSURE MERCURY VAPOUR DISCHARGE LAMP



(57) Abstract: Low-pressure mercury vapor discharge lamp has an at least partly substantially cylindrical discharge vessel (10) with a length  $L_{dv}$  and with an internal diameter  $D_{in}$ . The discharge vessel (10) encloses, in a gastight manner, a discharge space (13) provided with an inert gas mixture and with mercury. The discharge vessel (10) comprises discharge means (electrodes 20a; 20b) for maintaining a discharge in the discharge space (13). According to the invention, the ratio of the weight of mercury  $m_{hg}$  in the discharge vessel (10) to the product of the internal diameter  $D_{in}$  and the length of the discharge vessel  $L_{dv}$  is given by the relation: Formula (I), wherein  $C \$m(F) 0.01 \$g(m) g/mm^2$ . Preferably,  $0.0005 \$m(F) C \$m(F) 0.005 \$g(m) g/mm^2$ . Preferably, the discharge vessel (10) contains less than 0.1 mg mercury. The discharge lamp according to the invention operates under unsaturated mercury conditions.

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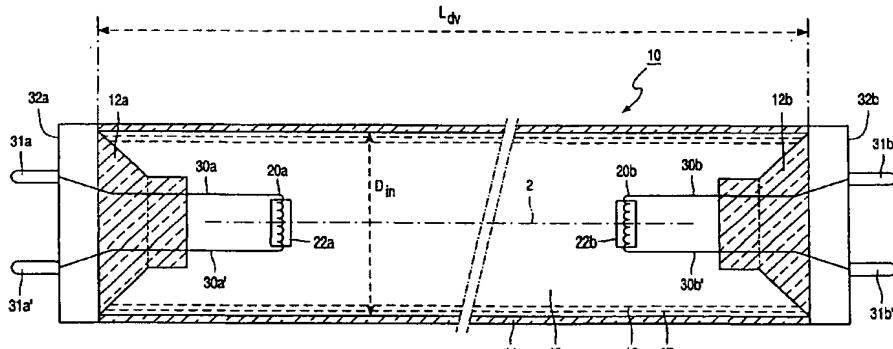
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(54) Title: LOW-PRESSURE MERCURY VAPOR DISCHARGE LAMP



$$\frac{m_{Hg}}{D_{in} \times L_{dv}} = C \quad (I)$$

(57) Abstract: Low-pressure mercury vapor discharge lamp has an at least partly substantially cylindrical discharge vessel (10) with a length  $L_{dv}$  and with an internal diameter  $D_{in}$ . The discharge vessel (10) encloses, in a gastight manner, a discharge space (13) provided with an inert gas mixture and with mercury. The discharge vessel (10) comprises discharge means (electrodes 20a; 20b) for maintaining a discharge in the discharge space (13). According to the invention, the ratio of the weight of mercury  $m_{Hg}$  in the discharge vessel (10) to the product of the internal diameter  $D_{in}$  and the length of the discharge vessel  $L_{dv}$  is given by the relation: Formula (I), wherein  $C \leq 0.01 \mu\text{g/mm}^2$ . Preferably,  $0.0005 \leq C \leq 0.005 \mu\text{g/mm}^2$ . Preferably, the discharge vessel (10) contains less than 0.1 mg mercury. The discharge lamp according to the invention operates under unsaturated mercury conditions.

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